CAN bus uPAC

CAN bus series Programmable Automation Controller

CE FC RoHS

µPAC-7186EXD-CAN

Dimensions

50, 35.4, 56.0, 122, 25.6, (mm), 58.15, 32.91, 72

Back View   **Front View**
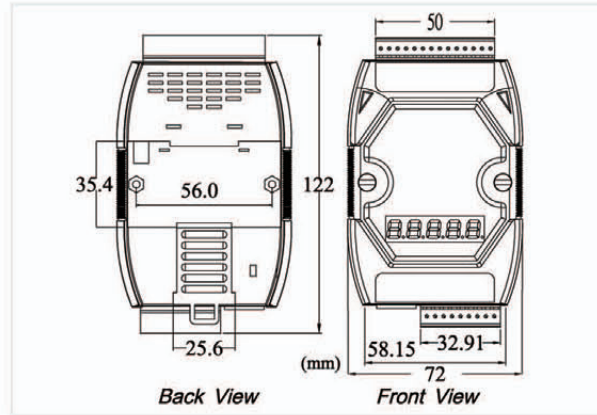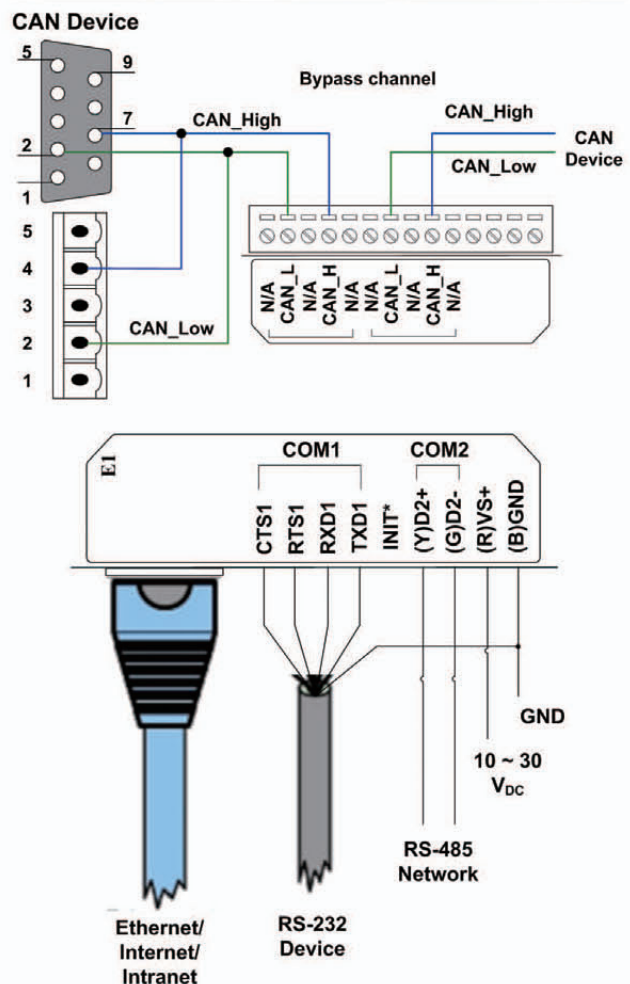
The µPAC-7186EXD-CAN PACs (programmable Automation controller) are powered by 80186-80 processor with 512 KB of static RAM, and 512 KB of Flash memory. All of them provide several communication interfaces to adapt to various applications, such as CAN port, RS-232 port, RS-485 port and Ethernet interface. Uses can program their application program flexibly with C/C++ language because of the built-in MiniOS7 operation system. It is useful for transfer the command from differential communication interface. Therefore, the µPAC-7186EXD-CAN series PACs are economic and convenient solution for diversification CAN application.

Features

- High reliability in harsh environment
- Embedded MiniOS7, anti-virus
- Supports a variety of TCP/IP features, including TCP, UDP, IP, ICMP, ARP
- 10/100BASE-T Ethernet controller
- Remote Configuration
- Support for Virtual COM configuration
- 1000 V_{DC} voltage protection on CAN side
- Compatible with CAN specification 2.0 parts A and B
- Programmable transfer rate up to 1 Mbps
- Jumper for 120 Ω terminator resistor for CAN channel
- 64-bit hardware unique serial number inside
- COM driver support interrupt & 1 KB QUEUE Input & Output buffer
- COM port: COM1, COM2
- Built-in RTC, NVRAM, EEPROM
- Built-in self-tuner ASIC controller on RS-485 port
- 7-segment LED display
- Program download port: COM1 or Ethernet Port (Available soon)
- Free easy-to-use software development toolkits
- Support the CAN bus instead of the X-bus, so it can not be add-on any X-board

Wiring and Pin Assignments

CAN Device

Bypass channel

CAN_High

CAN_High

CAN_Low

CAN Device

CAN_Low

N/A CAN_L N/A CAN_H N/A CAN_L N/A CAN_H N/A

E1 COM1 COM2

CTS1 RTS1 RXD1 TXD1 INIT* (Y)D2+ (G)D2- (R)VS+ (B)GND

GND

10 ~ 30 V_{DC}

RS-485 Network

Ethernet/ Internet/ Intranet

RS-232 Device

Hardware Specifications

Hardware	
CPU	80186, 80 MHz or compatible
SRAM/Flash/EEPROM	512 KB / 512 KB / 16 KB
NVRAM	31 bytes (battery backup, data valid for up to 10 years)
RTC (Real Time Clock)	Yes
ESD Protection	4 kV class A
CAN Interface	
Controller	NXP SJA1000T with 16 MHz clock
Transceiver	NXP 82C250
Channel number	1
Connector	5-pin screwed terminal block (CAN_L, CAN_H, N/A for others)
Baud Rate (bps)	10 k, 20 k, 50 k, 125 k, 250 k, 500 k, 800 k, 1 M (allow user-defined baud rate)
Isolation	1000 V_{DC} for DC-to-DC, 2500 Vrms for photo-couple
Terminator Resistor	Jumper for 120 Ω terminator resistor
Specification	ISO-11898-2, CAN 2.0A and CAN 2.0B
UART Interface	
COM 1	RS-232
COM 1 Connector	5-pin screwed terminal block (TxD, RxD, RTS, CTS, GND)
COM 2	RS-485 (Self-turner inside)
COM 2 Connector	2-pin screwed terminal block (DATA+, DATA-)
Baud Rate (bps)	110, 150, 300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
Ethernet Interface	
Controller	10/100Base-TX Ethernet Controller (Auto-negotiating, Auto_MDIX)
Power	
Power supply	Unregulated +10 ~ +30 V_{DC}
Protection	Power reverse polarity protection, Over-voltage brown-out protection
Power Consumption	3 W
Mechanism	
Dimensions	72mm x 122mm x 33mm (W x L x H)
Environment	
Operating Temp.	-25 ~ 75 °C
Storage Temp.	-30 ~ 80 °C
Humidity	10 ~ 90% RH, non-condensing
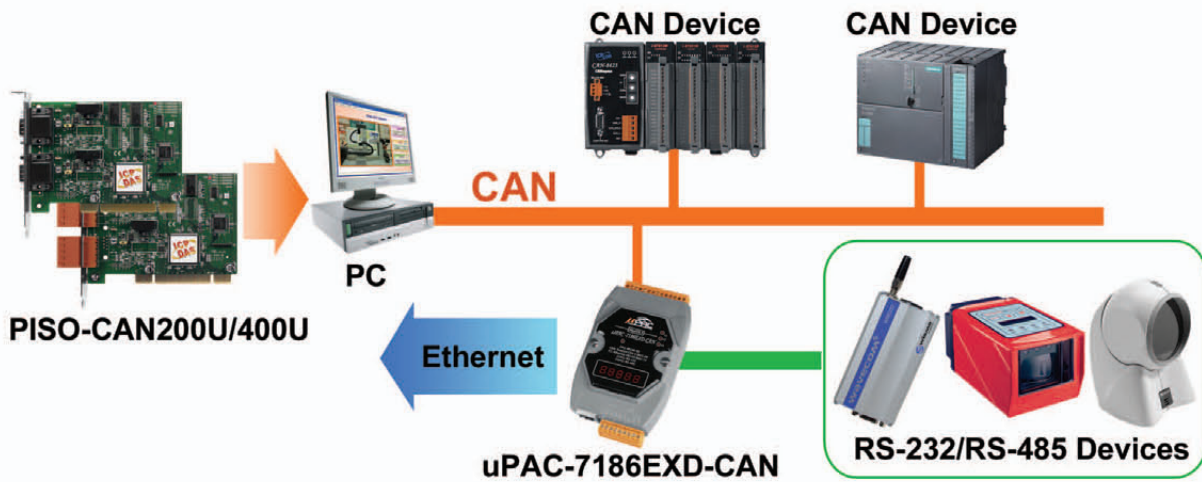
Ordering Information

µPAC-7186EXD-CAN	Programmable automation controller with two series communication port (RS-232/RS-485), one CAN port, one Ethernet port, 7-segment Display, 4 programmable LEDs, 512KB flash ,512KB SRAM, developing tool kit, Minios7.
µPAC-7186EXD-CAN CR	Programmable automation controller with two series communication port (RS-232/RS-485), one CAN port, one Ethernet port, 7-segment Display, 4 programmable LEDs, 512KB flash ,512KB SRAM, developing tool kit, Minios7. (RoHS)